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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,699	10/16/2003	Fred Hartnett	200209079-1	9165
22879	7590	02/24/2006	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			KOBERT, RUSSELL MARC	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/686,699

Applicant(s)

HARTNETT ET AL.

Examiner

Russell M. Kobert

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 14-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. With respect to Applicants' traversal to changing the title of the invention, the reasons provided in the Response are not persuasive because such a title would describe most patents already issued in class 324/754 and if every patent issued in class 324/754 had the same title, then it would not be apparent from the title alone how to distinguish what is different between each patent issued in class 324/754. Therefore the objection to the title is maintained.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. A good example of such a title, although not necessarily related to this specific case, could be "*Method and Apparatus for Passive Optical Characterization of Semiconductor Substrates Subjected to High Energy (MEV) Ion Implantation Using High-Injection Surface Photovoltage.*"

3. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1-6 and 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Nightingale et al (6404215).

Nightingale et al anticipates (Figures 2 and 4) an electronic circuit assembly test apparatus, comprising:

a support member (80) having a plurality of probes (60 and 62), each probe adapted to (considered an intended use limitation) contact a corresponding test area of an electronic circuit assembly (col 1, ln 14-20); and

a probe assembly (42) coupled to the support member, the probe assembly having a plurality of probes (50 and 52), wherein a spacing density of the probes of the probe assembly is greater than a spacing density of the probes of the support member (note spacing between probes 50 and 52 is less than the spacing between probes 60 and 62 making the spacing density of the probes of the probe assembly greater than the spacing density of the probes of the support member); as recited in claim 1.

Nightingale et al anticipates an electronic circuit assembly test apparatus (Figures 2 and 4), comprising:

first probe means (60 and 62) coupled to a support member (80) and adapted to (considered an intended use limitation) contact corresponding test areas on an electronic circuit assembly (col 1, ln 14-20);

support means (82 and 84) coupled to the support member; and

second probe means (50 and 52) coupled to the support means, the second probe means having a spacing density of probes greater than a spacing density of probes of the first probe means (note spacing between probes 50 and 52 is less than

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the spacing between probes 60 and 62 making the spacing density of the probes of the probe assembly greater than the spacing density of the probes of the support member); as recited in claim 9.

As to claim 2, having the spacing density of the probes of the probe assembly corresponding to test areas of an integrated circuit is anticipated by Nightingale et al (col 3, ln 32-36).

As to claim 3, having the probe assembly adapted to move laterally relative to the support member is considered an inherent property of the apparatus taught by Nightingale et al.

As to claim 4, having alignment guides disposed on the electronic circuit assembly is not considered to add patentable features to the apparatus as claimed.

As to claim 5, having at least one limiter adapted to limit movement of the probes of the probe assembly toward the electronic circuit assembly is inherent to the construction shown in Figures 2 and 4.

As to claim 6 having the probe assembly movably coupled to the support member to provide non-lateral movement of the probe assembly relative to the support member is inherent because the operation of pins 50 and 52 with respect to pins 60 and 62 are intended for vertical movement.

As to claim 8 having at least one spring disposed between the probe assembly and the support member is an inherent characteristic of probe tips 60 and 62 due to its ability to flex as a result of its geometrical shape.

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As to claim 10 having the support means being movably coupled to the support member is anticipated by Nightingale et al (col 4, ln 14-19).

As to claim 11 having the support means coupled to the support member to enable lateral movement of the support means relative to the support member is considered an inherent characteristic of Nightingale et al.

As to claim 12 having means for aligning the second probe means with corresponding test areas of the electronic circuit assembly is anticipated by the intended use of Nightingale et al.

As to claim 13 having means for limiting travel of the second probe means toward the electronic circuit assembly is inherent to the construction shown in Figures 4 and 8.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nightingale et al (6404215) as applied to claim 1 above, and further in view of Harsch et al (4721903).

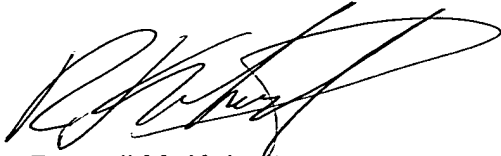
Although Nightingale et al does not explicitly describe the use of spring-biased probes as described in claim 7, Harsch et al shows the use of use of spring-biased probes in Figure 5; note springs (56) attached to probes (43, 44, 46, 48).

It would have been obvious to one having ordinary skill in the art at the time the invention was conceived to have combined the teaching of Harsch et al with that of Nightingale et al to make the claimed invention because each utilizes differential probes for making electrical measurements on conductive surfaces. One having ordinary skill in the art would have been motivated to employ the use of spring-biased probes because it is desirable to make good electrical contact with a device under test using spring forces to penetrate any oxide or non-conductive film layers on the surface of the device under test.

9. A shortened statutory period for response to this action is set to expire three month(s) from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kobert whose telephone number is (571) 272-1963. For an automated menu of Tech Center 2800 phone numbers call (571) 272-2800.



Russell M. Kobert  
Patent Examiner  
Group Art Unit 2829  
February 20, 2006



VINH NGUYEN  
PRIMARY EXAMINER

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02/21/06